

Cloud Share

Objective

The cloud has been ubiquitous for a while. Many providers make huge amounts of storage available for free which users use to store personal documents, photographs and the like. In this projectlet, we will experiment with cloud storage of files.

Different providers such as google (Google Drive), Microsoft (OneDrive), Apple (iCloud) might have different methods to access, authenticate etc. conceptually they are similar. The logical progression for this projectlet is to commence with one of these providers and add on others - in a smooth transition

User needs and requirements

Id	Need/Requirement
1	The utility shall support cloud storage of files.
2	The utility shall support searching for files based on name
3	The utility shall support uploading one or more files
4	The utility shall support downloading one or more files.
5	The utility shall use the authentication mechanisms of the service.
6	After initial authentication confirmation, the utility shall not require reentering the credentials.

User wants

The following will enhance the appeal of the tool.

Id	Wants
1	The utility shall support Google drive storage
2	The utility shall support Apple iCloud storage
3	The utility shall support Microsoft OneDrive storage
4	The utility shall support AWS storage

Specification

Command/Switch	Description
initialize	Initial credentialing for the user.
	Any required files shall be saved in ~/.cshare/. The folder should be created if it does not exist
—provider	Valid values: google apple microsoft aws Default: google
—refresh	Use this switch to forget the previous credential and reestablish the credential
list	Lists the files in the cloud storage
	Argument is a search string. Only file names containing this string need to be listed. Default is mp3
download	Download files from the cloud storage
	Argument is a search string. Files containing this in their names will be downloaded
—local-store	This is the directory where the downloaded files are stored. Default is “.”
—sync	Compare file size if the file already exists in the local store. Transfer only if the sizes differ.
upload	Upload files to the cloud storage
	Argument list is a list of files to be uploaded.

Example usage